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RemarksA. Reasons for claim amendments

Applicant's Amendment and Remarks of September 12, 2007 argued the step of emulsifying a polymerizable monomer prior to making the particles having said polysiloxane framework absorb the polymerizable monomer. However, the subsequent Office Action of November 2, 2007 dismissed such a process step and the Examiner kindly discussed the limitations of product-by-process claims. The purpose of the amendments to the preamble of independent claim 1 to "In the art of emulsification" and "wherein the additive is a product of an emulsification" is to clarify and limit the scope of independent claim 1 and its dependent claims to an additive that is a product of an emulsification.

The purpose of new claim 5 is to present an independent product claim as an alternative to a product-by-process claim by deleting the claim language "obtained by a process including the steps of: ..." from claim 1 to minimize the process expression as much as possible and maximize the product expression as much as possible.

New claims 6-9 present process claims as an alternative to product-by-process claims. As indicated above, the Examiner kindly discussed product-by-process claims in the Office Action of November 2, 2007 and how the process steps in such product-by-process claims may not be limiting. More specifically, in the amendment of September 12, 2007, a process feature (feature "c") was introduced into claim 1 and, based on this feature, differences from the prior art were argued. However, the Examiner subsequently discussed product-by-process claims as follows on page 3, first and second paragraphs of the Office Action of November 2, 2007:

Concerning Applicant's requirement that the organic polymer framework be prepared by first emulsifying the

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monomer material and having the network polysiloxane absorb the emulsified monomer prior to initiating polymerization, it should be appreciated that these new limitations are process limitations within the confines of a product claim. That is to say, the invention of claim 1 is now described employing product-by-process language.

"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process" *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

B. Basis for claim amendments

Basis for the amendments to claim 1 includes claim 1 itself.

Basis for new claim 5 includes present claim 1.

Basis for new claims 6-9 includes present claims 1-4.

Basis for new claims 10-14 includes page 24, line 14 to page 26, line 11 of the originally filed specification (paragraphs [0078] to [0086] of the published specification).

Further basis for new claims 10-14 includes Examples 1 and 2 on page 29, line 21 to page 32, line 12 of the originally filed specification (paragraphs [0122] to [0137] of the published specification).

C. The Office Action of November 2, 2007

On pages 2-4 of the Office Action, the Examiner kindly gave a detailed discussion concerning network structures, process limitations, and product-by-process claims. This explanation is very much appreciated.

Applicant maintains additive (product claims) in claims 1-5. The preambles of independent claims 1 and 5 are now limited to the emulsification art, and the additive itself in independent claims 1 and 5 is limited to an additive that is a product of an emulsification.

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Applicant now presents process claims in new claims 6-14. Examination of these process claims would be very much appreciated.

On page 5 of the Office Action, claims 1, 2 and 4 were rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kukumoto et al. As to this rejection, please see the discussion below as to Kukumoto.

On page 5 of the Office Action, claims 1-4 were rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sakai et al. As to this rejection, please see the discussion below as to Sakai.

On pages 6-7 of the Office Action, claims 1, 3 and 4 were rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kuramoto et al. As to this rejection, please see the discussion below as to Kuramoto.

On page 7 of the Office Action, the rejection over U.S. Patent # 6,548,590 was withdrawn. This is appreciated.

On page 7 of the Office Action, the rejection over JP 2003-98714 was withdrawn. This is appreciated.

D. Applicant's discussion

D.1. As to Kukumoto et al.

As already argued in the response to the previous Office Action and as kindly acknowledged on page 5 in the outstanding Office Action, "there is no disclosure of a pre-emulsification of the vinyl monomer" in this reference.

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D.2. As to Sakai et al.

Sakai discloses a mode that "Monomers having groups capable of radical polymerization with the radical-polymerizable groups can also be present when carrying out radical polymerization" (column 23, lines 28-30 of Sakai '619; column 23, lines 39-41 of Sakai '932). However, as to a method for achieving such a mode, Sakai fails to disclose making polysiloxane particles absorb the polymerizable monomer in advance of the polymerization (absorption step ii) as recited in independent claims 1, 5 and 6 in the present application). In addition, Sakai fails to disclose emulsifying the polymerizable monomer in advance of the absorption (emulsification step i) as recited in independent claims 1, 5 and 6 of the present application). Furthermore, Sakai makes no mention of "surfactant."

However, the Examiner respectfully states the opinion that "Additionally, the Examiner believes that the mere mixing of the intermediate product and the vinyl monomer will result in the absorption of the monomer by said intermediate product" on page 6, lines 8-10 of the outstanding Office Action. From this opinion of the Examiner, it is inferred that the Examiner considers that though Sakai does not explicitly disclose "absorption," the "absorption" of the vinyl monomer by the intermediate product appears to be caused even by mere mixing of the intermediate product and the vinyl monomer which is an extremely routine operation to a skilled artisan, so that Sakai implicitly discloses the "absorption."

In addition, subsequently to the above opinion, the Examiner respectfully states an additional opinion that "Indeed, Applicant's Specification does not appear to mention any special measures that must be taken to coerce

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this absorption step" on page 6, lines 10-11 of the outstanding Office Action. From this opinion of the Examiner, it is inferred that the Examiner does not acknowledge the necessity of the emulsification step i) of independent claim 1 (or of subsequently added independent claims 5 and 6) in the present application.

Thus, in order to overcome these opinions of the Examiner, applicant argues as follows.

The mere "mixing" of the intermediate product and the vinyl monomer cannot make the intermediate product successfully "absorb" the vinyl monomer. The present application discloses on page 22, lines 20-23 of the originally filed specification (paragraph [0069] of the published specification) that "there is preferred a mode in which the polymerizable monomer is added to the polysiloxane particles in a state where the polymerizable monomer has beforehand been emulsify-dispersed, because such a mode makes it possible to more efficiently carry out the absorption into the above particles. According to this disclosure, in order to successfully carry out the "absorption," the vinyl monomer (polymerizable monomer) needs to be emulsified in advance of the "absorption" as in emulsification step i) of independent claims 1, 5 and 6 in the present application. Unless the vinyl monomer (polymerizable monomer) is emulsified in advance of the "absorption," it is impossible to successfully carry out the "absorption" of the vinyl monomer (polymerizable monomer) into the intermediate product (polysiloxane particles).

D.3. Kuramoto et al.

The Examiner respectively alleges that Kuramoto discloses in paragraph [0056] that after condensation, a vinyl monomer is blended with the silane condensation product

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and then subjected to radical polymerization. However, in paragraph [0056] as referred to by the Examiner, Kuramoto only discloses that a monomer having a group capable of radical polymerization with a radical-polymerizable group may be allowed to coexist when carrying out radical polymerization. In addition, as to this "coexistence of the polymerizable monomer during the polymerization," Kuramoto fails to disclose such as a purpose or specific form or method of the "coexistence". Also, no working example thereof is disclosed. Therefore, Kuramoto fails to disclose making polysiloxane particles absorb the polymerizable monomer in advance of the polymerization (absorption step ii) of independent claims 1, 5 and 6 in the present application) as a method for achieving the "coexistence of the polymerizable monomer during the polymerization." However, from the use of the word "blended" in the above respective argument by the Examiner (emphasized by an underline in the above respective argument by the Examiner), it is inferred that the Examiner considers that Kuramoto also implicitly discloses "absorption" similarly to the aforementioned Sakai reference. Therefore, as against the above respective argument by the Examiner, it appears that one may make the same argument as against Sakai.

Incidentally, the Examiner also respectively argues that Kuramoto further discloses in paragraph [0054] that the vinyl monomer may be emulsified with a surfactant prior to carrying out the polymerization. However, in paragraph [0054] as referred to by the Examiner, Kuramoto only discloses that the polymerization step may be carried out in the presence of a surfactant. In addition, as to this "carrying out the polymerization step in the presence of a surfactant," Kuramoto fails to disclose such as a purpose or specific form or method thereof. Also no working example

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thereof is disclosed. Therefore, the above respective argument by the Examiner, which concludes that Kuramoto discloses that the vinyl monomer may be emulsified with a surfactant prior to carrying out the polymerization only from the disclosure "the polymerization step may be carried out in the presence of a surfactant" in paragraph [0054] of Kuramoto, appears to be an interpretation that extends too much beyond the disclosure of Kuramoto and appears to be hindsight based on the teaching of the present application, and further does not appear to be an interpretation obvious to a skilled artisan.

E. Housekeeping matters

E.1. Period For Reply

This Amendment and Remarks, as part of an RCE, is being filed in response to the Office Action of November 2, 2007. November 2, 2007 plus three months is February 2, 2008. February 2, 2008 falls on a Saturday. This paper is being filed on or before Monday, February 4, 2008.

E.2. Status

The Office Action of November 2, 2007 was made final.

E.3. Disposition Of Claims

Claims 1-14 are pending.

E.4. Application Papers

This case includes no drawings.

E.5. Priority under 35 U.S.C. §§ 119 and 120

As to foreign priority, acknowledgment of the claim for foreign priority was made in the Office Action dated June

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22, 2007. This is appreciated.

Further as to foreign priority, acknowledgment of the receipt of the priority document was made in the Office Action dated June 22, 2007. This is appreciated.

As to domestic priority, this case does not claim domestic priority.

E.6. Attachments

Applicant has filed three PTO-1449 forms in this case (a first with the filing of this case on September 12, 2005, a second on August 18, 2007, and a third on December 6, 2007).

The first and second PTO-1449 forms respectively filed on September 12, 2005 and August 18, 2007 have been initialed, signed and returned.

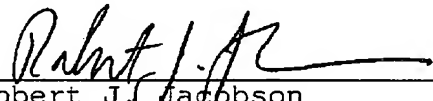
The PTO-1449 form filed on December 6, 2007 was, of course, filed after the mailing of the outstanding Office Action of November 2, 2007. Consideration of the prior art listed on such form and return of this form would be very much appreciated.

F. Conclusion

Applicant respectfully submits that the present application is now in condition for allowance. The Examiner is respectfully invited to make contact with the undersigned by telephone if such would advance prosecution of this case.

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